

WHAT IS CLAIMED IS:

1. A method for automatic detection and correction of image orientation errors comprising the steps of:

receiving a digital representation of an image;

identifying at least one vertical or horizontal objects within said image;

determining an orientation error of at least one of said identified vertical or horizontal objects;

rotating said digital representation of said identified image in a manner to reduce said orientation error; and

displaying a corrected digital image.

2. The method of claim 1 further comprising the step of:

performing said steps of receiving, identifying, determining, rotating and displaying within a digital camera.

3. The method of claim 1 further comprising the step of:

checking a disable feature to ensure said automatic detection and correction of orientation errors should be performed.

4. The method of claim 1 further comprising the step of:

disabling said automatic correction of orientation errors for orientation errors in excess of a predetermined maximum amount.

5. The method of claim 1 further comprising the steps of:

compressing said corrected digital image to provide compressed image data; and

storing said compressed image data in a memory.

6. The method of claim 1 wherein said automatic detection of orientation errors is performed from identified edges of objects contained within the digital representation of an image.

7. The method of claim 1 wherein said automatic detection of orientation errors includes operating a tilt angle sensor to determine a tilt parameter value.

8. The method of claim 1 wherein both horizontal and vertical objects are used in said automatic detection of orientation errors.

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9. An image orientation correction system comprising:

a user-selectable input device;

a tilt determining mechanism configured to sense orientation errors of received images;

5 a processor configured to respond to said user-selectable input device and to send said orientation errors of an image for modifying said image to remove said orientation errors; and;
a display configured to display a digital image as modified by said processor.

10. The orientation correction system of claim 9 wherein:

said user-selectable input allows a user to disable said orientation correction system.

11. The orientation correction system of claim 9 wherein:

said tilt determining mechanism includes a tilt sensor.

12. The orientation correction system of claim 9 wherein:

said tilt determining mechanism is implemented via software.

13. The orientation correction system of claim 12 wherein said software implemented tilt determining mechanism detects and uses an edge of an object contained within said digital representation of said image to determine said orientation errors of said digital image.

14. The orientation correction system of claim 9 further including:

an automatic disable feature which disables said orientation correction when said orientation error is determined to be greater than a predetermined maximum error value.

15. The orientation system of claim 14 wherein said predetermined maximum error value is five degrees.

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16. A camera comprising:

an image sensor;

a display connected to display an image captured by said image sensor;

an orientation sensor identifying an orientation of said image sensor with respect to
5 said image captured by said image sensor; and

an image processor responsive to said orientation sensor for performing a rotation
operation on said image captured by said image sensor so as to provide corrected image data
reducing a misalignment of said image.

17 The camera according to claim 16 further comprising:

a memory configured to store said corrected image data.

18. The camera according to claim 16 further comprising:

an image compressor configured to perform compression of said corrected image data.

19. The camera according to claim 18 wherein said image compressor implements
a lossy image compression algorithm

20. The camera according to claim 17 wherein said image captured by said image
sensor is stored in said memory when said identified orientation is greater than a
predetermined maximum value.